

John Becsey

**Asphalt Pavement Association of Michigan (APAM)**

**Comments on Substitute for Senate Bill 879 (9-7-16)**

**1. Section 1 h (4) (A) - SB 879 removes the requirement for data to come from states with similar climates, soil structures, or vehicle traffic. We are opposed to the proposed changes in this requirement.**

In 1997, when the Sec. 1h life cycle cost requirements were added to Act 51, the asphalt industry supported the language that requires life cycle costs to be based upon Michigan's actual historical pavement performance and cost data.

The current law **Sec. 1h (4)** states, "For pavement projects for which there is no historical pavement performance and cost data, the department may use actual historical and comparable data for equivalent designs **from states with similar climates, soil structures, or vehicle traffic.**"

SB 879 removes the requirement for the data to come from states with similar climates, soil structures, or vehicle traffic. We are opposed to the proposed changes in this requirement.

The proposed changes are problematic for the following reasons:

Pavements deteriorate due to the effects of both traffic loads and the environment.

There are four distinct climate zones in the US, as classified under the Long Term Pavement Performance (LTPP) program. See the attached LTPP map.

Michigan is in the "wet - freeze" zone where pavements are subjected to damaging effects of high levels of moisture and severe freeze -thaw cycles. Therefore, it would not be appropriate to use pavement performance data from a state in the "dry - non -freeze" zone such as Texas and apply it to a life cycle cost in Michigan.

Regarding vehicle traffic, performance data obtained from a pavement design in a state with low traffic volumes would not be applicable to a high traffic roadway in Michigan.

**2. Section 1 h (4) (A)- SB 879 would also allow the use of data from a foreign country. We are opposed to using performance and cost data from a foreign country because there are too many confounding factors present that affect pavement performance and pavement economics as follows:**

1.The same concerns regarding climate and traffic as discussed above.

2.Many foreign countries use very different contracting and maintenance practices compared to Michigan which can impact pavement performance. Many "proprietary products" are also

used so we have limited knowledge of how the product attributes compare to materials used in Michigan.

3. Construction methods and materials manufacturing processes can be very different.

**3. Section 1 h (4) (B) - 4 (B) has been added which allows the Department to determine appropriate maintenance, repair, and resurfacing schedules when other information is not available.**

The following language has been added to this section:

(B) IF THE DEPARTMENT IS UNABLE TO OBTAIN THE INFORMATION DESCRIBED IN SUBDIVISION (A), THE DEPARTMENT MAY DETERMINE APPROPRIATE MAINTENANCE, REPAIR, AND RESURFACING SCHEDULES FOR A PROJECT BY USING APPROPRIATE ENGINEERING ANALYSIS TECHNIQUES UPON APPROVAL BY THE CHIEF ENGINEER OF THE DEPARTMENT.

The above language should be applied only to pavement demonstration projects, not to the normal projects that go through the life- cycle cost analysis procedure. Therefore, this language needs to be moved to Section 1i, i.e. the demonstration project section.

It is noted that in the original version of SB 879, language in (4) (B) was of a similar intent and was included to address "sufficiently successful preliminary results from a lawful demonstration project currently underway".

**4. Section 1i (1) - "the department may conduct not more than ~~4~~ 10 pavement demonstration projects per year ...".**

We are opposed to allowing up to 10 demonstration projects per year. Currently 4 projects per year are allowed. This is a reasonable number and should not be changed.

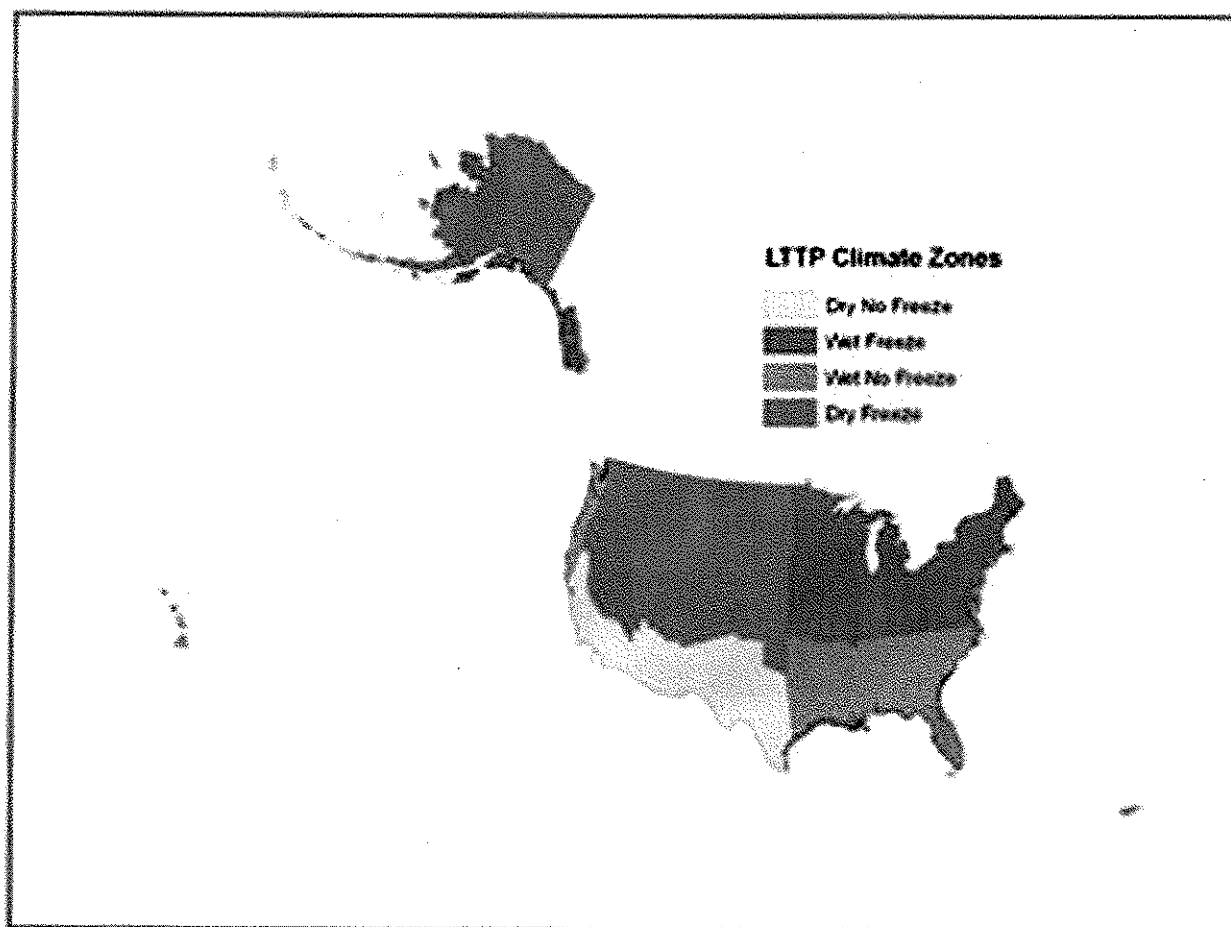
The Department has only conducted a total of 10 demonstration projects over an 8-year period between 2003 and 2010. To our knowledge, there have been no demonstration projects conducted between 2011 and 2016. (The section authorizing demonstration projects was enacted in 2001, effective Jan 9, 2002.)

**5. Section 1i (3) - Requirement to balance the demonstration program between asphalt and concrete projects.** The current law requires that the cost of the contracts for demonstration projects is balanced between asphalt and concrete projects. SB 879 removes this requirement. We are opposed to this change.

It is important that both pavement types be afforded the same level of participation in the pavement demonstration program and are each allowed to demonstrate promising innovations. Because pavement demonstration projects are selected without going through the life-cycle cost analysis (LCCA) process, there is also a need to maintain a program balance so there is no favoritism to either pavement industry.

Therefore, the requirement for balancing of contract costs over a two-year period should not be removed from the current law.

**Attachment: LTPP Climate Zones**





**1. Section 1 h (4) (A) - SB 879 removes the requirement for data to come from states with similar climates, soil structures, or vehicle traffic. We are opposed to the proposed changes in this requirement.**

(This applies only if MDOT has no historical data for a particular pavement design)

**2. Section 1 h (4) (A)- SB 879 would also allow the use of data from a foreign country. We are opposed to using performance and cost data from a foreign country because there are too many confounding factors present that affect pavement performance.**

**3. Section 1 h (4) (B) – 4 (B) has been added which allows the Department to determine appropriate maintenance, repair, and resurfacing schedules when other information is not available.**

The language in this section should be applied only to pavement demonstration projects, not to the normal projects that go through the life- cycle cost analysis procedure. Therefore, this language needs to be moved to Section 1i, i.e. the demonstration project section.

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